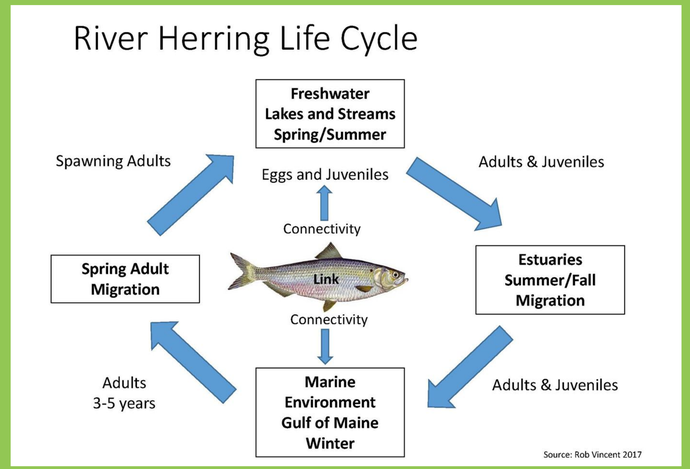
# River herring are important ecosystem connectors




## Herring travel through estuaries to spawning areas upstream, connecting ocean and inland ecosystems

River herring occupy the middle of the food web and are key in transferring nutrients between freshwater and marine systems.

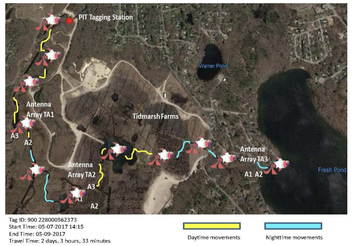
Each Spring, they migrate from the Gulf of Maine on their annual journey to reproduce in freshwater rivers and lakes.

Juveniles and adults travel back to the ocean in summer and fall to again become part of the marine food web: marine mammals, birds, and larger fish all depend on them.

Alewife (*Alosa pseudoharengus*) migrate early April - early June

Blueback Herring (*Alosa aestivalis*) migrate late May - early June

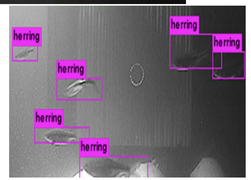
## Counting migrating herring is key to helping fish populations thrive and keeping ecosystems healthy



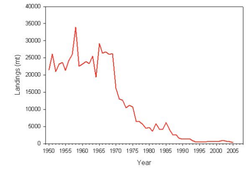

Herring are tagged and tracked as they make their way along stream channels and through man-made fish passage structures. Those data can be visualized and analyzed with computer simulations like in the image above.

Volunteer monitoring and community participation are very important in developing estimates of abundance and management plans for coast-wide populations and habitats.


Cameras on fish ladders are being combined with machine learning to create automated video monitoring systems.




## Why it Matters




River herring are important prey species that support marine and freshwater systems. Populations have declined substantially over time and monitoring is key to assessment and sustainable management of the species.

## What You Can Do

You can help gather needed information for estimating herring populations.

Contact MIT Sea Grant to get involved with volunteer monitoring and citizen science programs.

MIT SEA GRANT COLLEGE PROGRAM

Robert Vincent
MIT Sea Grant

Take a picture to see more Sea Grant herring projects

*This work supported by*

Massachusetts Bays NATIONAL ESTUARY PARTNERSHIP